Inside:

• Magnificent Moose
• The Deer Family
• Awesome Antlers
• Humongous Horns
• Together or Alone?
• Be Moose Aware
• Be Outside: It’s Hunting Season
There are large animals in Idaho concealed amongst the trees’ shadows. Often the only signs giving away their hiding places are quaking branches and rustling leaves. They love to be around wet meadows, streams, lakes and ponds. This shadow is the moose.

The name moose comes from the Algonquian word “mons” which means twig eater. What an appropriate name! Moose are herbivores; they eat only plants. The twigs and leaves of willows, quaking aspen, dogwood and birch are favorites. Moose also love water plants. Moose do not have any upper front teeth, so they don’t just nip off leaves and twigs. Instead, they often pull twigs sideways through their mouths. They have really tough lips and tongues. Stripping off two feet of leaves and shoots from a branch is no problem at all for a moose. An adult moose can eat 40 to 50 pounds of food a day! That’s a lot of leaves.

Moose are the largest members of the deer family. They have long, thin legs and long, square heads. Only males grow antlers. A full grown male, called a bull, may stand six feet high at the shoulder and weigh 1,000 to 1,600 pounds. The female, called a cow, is smaller; she may weigh between 800 and 1,300 pounds.

Moose are covered by a thick layer of dark hair. During the winter, it is a nice warm coat that absorbs heat from the sun. During the summer, it becomes a burden. Moose do have a thinner layer of hair in the summer, but they still get hot. Moose cool off the same way you might. They go swimming! Moose love the water. A thick forest with lots of shade is also a welcome retreat for a hot moose.

Both the males and females have a flap of skin and hair hanging from their throats. It’s called a bell or dewlap. The dewlap helps moose “talk” to each other. The dewlap has scent glands that moose can rub on plants to mark their presence. Males and females also communicate with smell during the rut or breeding season.

In late May or early June, a cow moose seeks out a quiet, hidden place to give birth to her baby, called a calf. Usually the cow will give birth to one calf, but sometimes twins are born. The mother will keep the calf well hidden for the first few weeks. A moose is very protective of her calf. She will charge anything that gets too close by rushing forward and striking with both front feet.

A calf weighs between 20 to 35 pounds when born, but it grows quickly on its mother’s rich milk. By the time the calf is one week old, it can run faster than a man. Plants become part of a calf’s diet when it is two weeks old. By the second month, a calf can gain over two pounds a day! A six-month-old calf will weigh around 400 pounds. Wow! The calf stays with its mother for the first winter. Then the mother forces the calf away to live in another area.

Moose are magnificent! We may look big and awkward on our long legs, but watch us for a while. You will soon realize we are powerful and graceful creatures.

Photos Top to Bottom:
Moose CCBY Ryan Hagerty, USFWS, Moose and calf CCBY Enlightening Images, Pixabay, Bull Moose CCBY IDFG
Moose are a member of the deer family. Throughout the world there are about 40 different species (kinds of animals) in the family. They are found on every continent except Antarctica and Australia. Africa has only one native deer, the red deer.

Members of the deer family come in many sizes. The smallest deer in the world lives in the Andes Mountains. The pudu stands about one foot tall and weighs less than 20 pounds. The biggest member in the world is the moose. A male moose can weigh nearly 80 times more than the pudu.

One thing all family members have in common is that they are ungulates (UN-gyu-lits). All ungulates have hooves. They are also herbivores; they eat plants. Grasses, leaves and twigs are tough to eat. To help them digest plants, ungulates have stomachs divided into four different chambers or rooms. They nip off plants, but they don’t chew their food much before swallowing it. The plants go into the first chamber of the stomach. It is full of bacteria and other organisms that help break down the plants. Later, they spit up the food and chew it again. Have you ever heard of cows chewing their cud? They are chewing food regurgitated from their stomachs. Once chewed, the food is swallowed again and passes into the second and third parts of the stomach where water is taken out. The fourth chamber is the one that is most like your stomach. It absorbs the nutrients out of the food.

Having a stomach with many chambers not only allows deer to eat tough plants, it also helps to keep them safe. Many animals are at risk when they eat. Predators are more likely to see a deer eating in a clearing than hiding under a tree, so deer eat quickly. They nip off plants, chew them just a little and then swallow them. Once their first stomach is full, deer find a place to rest and hide. Now the deer can fully chew and digest their food, without having to constantly look out for danger.

Members of the deer family in North America include moose, elk, caribou, mule deer and white-tailed deer. Wherever you live in North America, you are likely to be near at least one member of the deer family. Idaho, however, is lucky. We have all five species living in our state!
Antlers grow on members of the deer family, like moose. They are bones that grow out of the animal's skull. An antler grows faster than any other kind of bone. It can grow up to one inch a day during the summer! Usually only the males grow antlers, but female caribou can grow antlers. There is even a species of deer where neither the male nor female grow antlers - the Chinese water deer. But they grow something else, fang-like tusks!

Antlers are light and easily damaged until late summer. While growing, antlers are covered with a thin skin called velvet. Velvet is covered with fine, short hairs and contains thousands of blood vessels. The blood vessels carry calcium and minerals needed for building strong antlers. If a moose damages his antlers badly at this point, he could actually bleed to death! Growing antlers takes a lot of energy. Animals don't do much as their antlers grow; they stay hidden and are not aggressive. Once the antlers have grown, the blood vessels in the velvet close off. The velvet dries up and starts to fall off. By late summer or early fall, the velvet has been completely rubbed off. The antlers are hard and polished - ready to show off for the females and intimidate younger males. Antlers are shed during the winter. Then the process starts all over again!
Mountain goats, bison, pronghorn and bighorn sheep have horns. Horns are a bit different than antlers. Horns have two parts, a boney middle and an outer sheath. The inside part is bone that is attached to the skull. The outside of the horn, the sheath, is a covering made of a tough fiber-like material called keratin. Your fingernails and hair also contain keratin. What purpose does the sheath serve? It protects the delicate bone underneath.

Both males and females may grow horns. Horns are permanent. In most cases, they continue to grow throughout an animal’s life. Pronghorn are an exception to this rule. Pronghorn will shed and re-grow the sheath.

If you take a close look at most horns, you may see rings or segments. Counting the segments may give you an idea of an animal’s age. Mountain goats’ horns grow quickly during their first three years of life. About 94% of the horn growth happens during the first three years. The first year’s growth ring is not visible on a mountain goat. To estimate a mountain goat’s age, count the segments and add 1 to your total. This is the age of the mountain goat. Who knew you could learn so much just from a horn?
Moose are animals that usually are found living alone. You are unlikely to see moose in large groups like a herd of elk. Why do some animals live together and others live alone?

Elk are animals that live in groups. Usually, female elk and their young live in herds. The main reason they live together is for protection. Females leave the group to give birth, but soon come back when their babies are a few weeks old. By living together, elk have more sets of eyes looking out for danger. If a predator does attack, there will be more hooves to fight it off. Elk can also take advantage of babysitters. Elk take turns eating while a babysitter looks after the calves. A well-fed mother can take better care of herself and her baby.

Wolves also usually live in groups, called packs. Wolves like to eat larger animals like elk. One wolf would have a difficult time bringing down a large elk by itself, but by working together, wolves are more successful hunters.

Moose usually live alone. Moose can eat 40 to 50 pounds of food a day. A group of moose could do some serious damage to a grove of trees in a short amount of time. By spacing out, they help to keep the habitat productive and reduce competition for food. Sometimes moose live together in groups called “yards.” You are likely to see a yard of moose during the winter when food is limited and more difficult to find. Moose are sometimes forced to live together. When food is plentiful, moose don’t want or have to share.

These are just a few examples of why animals may live in groups or by themselves. Can you think of other animals that live in groups? How does this strategy help them survive? What about a solitary animal? Does living alone offer it benefits?
Moose are animals that may come into Idaho’s towns and cities. This often happens during the winter or early spring when moose come down out of the mountains looking for food. However, moose may wander too close to humans at any time during the year. Moose are large, curious animals. They usually don’t want to cause harm, but with the average moose weighing about 15 times more than your average fourth grader, sometimes things happen. Remember moose are wild animals and can be unpredictable.

If you see a moose, here are some points to remember:

- **LOOK** for these signs of a moose feeling stressed or threatened; it may charge:
  - ears laid back
  - hair on shoulders standing up
  - snorting or grunting
  - stomping hooves
- **NEVER** get between a cow and a calf. Remember, moose are very protective mothers.
- **DON’T** walk toward a moose if you can avoid it; try to remain at least 50 feet away.
- **NEVER** throw anything at a moose. They may see this as a sign of aggression.

- **ALWAYS** keep dogs under control or on a leash. A dog may chase after a moose and suddenly find the moose chasing it. Naturally, the dog runs back to its owner bringing an angry moose back, too.
- **AVOID** moose that are in a fenced area or between houses; they may feel cornered.
- **IF A MOOSE CHARGES**, try to get behind a tree or vehicle. You can run around a tree better than a moose.
- **IF A MOOSE ATTACKS**, get down on the ground, cover your head and stay very still. You want to show that you are not a threat.
- **REMEMBER MOOSE KICK** with their front feet as well as their hind feet.
Fall is the time for cooler weather, colorful leaves and hunting season! Fall is often a hunter’s favorite time of the year.

In Idaho, hunters may harvest many animals, including moose. Moose hunting is highly regulated in Idaho. Moose are referred to as a “once in a lifetime species.” A hunter may only harvest one moose with antlers and one moose without antlers during his or her lifetime. Tags are not available for anyone to purchase. Hunters have to apply and be selected for a limited amount of controlled hunt tags. For all the rules, read the seasons and rules booklet for moose on Fish and Game’s website. [https://idfg.idaho.gov/rules/moose-sheep-goat](https://idfg.idaho.gov/rules/moose-sheep-goat).

Hunters go hunting for many reasons. Filling a freezer with healthy meat is one goal. Venison is lower in calories and fat than beef. It also is higher in other things our bodies need, like iron and niacin. While all hunters hope to harvest an animal, spending time with family and friends is the best part of hunting.

If you want to hunt, the first step is to take a hunter education class. You must pass this class to buy a hunting license. Anyone nine or older can take hunter education. A hunter education class will help you learn to be a safe, responsible hunter. You will learn how hunting is important to wildlife management, and the important role hunters have played in protecting wildlife. To learn more about hunter education, visit our website at [https://idfg.idaho.gov/hunt/education](https://idfg.idaho.gov/hunt/education).

One of the best ways to learn about hunting is by going on hunting trips with family or friends. Even if you are not ready to harvest an animal, you can learn a lot. Help find animals by looking for tracks or scanning with binoculars. You can help carry equipment and navigate to locations using a map and compass. If an animal is harvested, help pack it back to your camp. You can even learn to cook what has been harvested. All these experiences, along with hunter education, will help prepare you for hunting.
Magnificent Moose

Across
2. This is the name given to the flap of skin and hair hanging from a moose’s throat.
4. Moose do this to cool off in the summer.
5. This is what a female moose is called.
7. An adult moose can eat 40 to 50 ________ of food a day!
9. These are found on male moose.

Down
1. Moose are ________; they eat plants.
3. The largest member of the deer family.
6. This is what a male moose is called.
8. This is the word for a baby moose.
10. The name for the breeding season of moose.